

MISCELLANEOUS NOTES

1. THREATS TO FORAGING HABITAT OF INDIAN COURSER
CURSORIUS COROMANDELICUS IN ABDASA TALUKA, KACHCHH, GUJARAT, INDIAS.B. MUNJPARA¹ AND I.R. GADHVI²¹GEER Foundation, Indroda Park, Gandhinagar 382 007, Gujarat, India. Email: sandeepmunjpara@gmail.com²Department of Marine Sciences, Bhavnagar University, Gaurishanker Lake Road, Bhavnagar 364 022, Gujarat, India. Email: indragadhvi@gmail.com**Introduction**

The Indian Courser *Cursorius coromandelicus* is a resident species of arid and semi-arid areas of the Indian subcontinent. It is quite common but rather patchily distributed in its distribution range. It is also partly nomadic and locally migratory. It generally inhabits wastelands and fallow land with scattered scrub, ploughed fields and village grazing grounds of dry stony plains and Deccan plateau. It avoids areas of heavy rainfall as well as pure desert (Ali and Ripley 1998). It is not found on the coast. This species has mostly been recorded during birding activities in India. It has not received any serious attention in terms of ecological studies. Globalisation and unplanned developmental activities have also affected the occurrence of the Indian Courser in some parts of the country. The population of the Indian Courser is declining at an alarming rate in its natural habitat (Pande *et al.* 2003). In Haryana, it has now become a rare breeding resident in Sultanpur Bird Sanctuary. Once it was common and lived among the scrub and wasteland vegetation of the campus of the National Chemical Laboratory, Pune, India, in the 1960s, but now it is rarely sighted there (www.ncl-india.org). In Gujarat, once upon a time, the Indian Courser was very common in grasslands and fallow lands. But it seems to be disappearing from some of the areas where it was found (personal communications from well-known ornithologists, eminent naturalists and bird watchers of the state). Most of the area has been converted to human habitation and agricultural activity. During our study of ecological aspects of the Indian Courser at Abdasa taluka, we observed that the main foraging habitat of the Indian Courser consists of short and sparse grasslands and fallow lands. This natural habitat is destroyed in some areas and disturbed due to the movement of heavy vehicles and the development of industrial establishments.

Study Area

Abdasa taluka of Kachchh district in Gujarat, India, was selected as the study site. It is situated in the south-western province of Kachchh. The area is of the arid and semi-arid type. In summer the temperature reaches 40-45 °C, and in

winter it sometimes goes below 5 °C. Most of the area is wasteland or agricultural land. It falls under ecological zone 5A/DS 4 (Dry Grassland), with few scattered patches of 5A/DS 2 (Dry Savannah) (Champion and Seth 1968). One of the significant grasslands of Gujarat state is also within this area, the Naliya Grassland. The grassland is dominated by grass species such as *Cymbopogon*, *Aristida* and *Dichanthium*. *Acacia*, *Zizyphus*, and *Prosopis* are the major shrub/tree species (Meena *et al.* 2005). The major habitats in the area include grasslands, scrub lands, open lands, and permanent and temporary water bodies. However, some patches of dense *Prosopis* and planted shrub cover also exist.

Methodology

Data collection was carried out during regular field visits to the study area. Ten fixed length line transects were laid. The length of each transect was 1 km, and its width was 50 m on each side (total width 100 m) in all microhabitats. The transects were thoroughly surveyed from 0600 hrs to 1030 hrs and from 1600 hrs to 1830 hrs during May 2007-August 2008, covering all the three distinct seasons. Encounter rate was calculated using standard method.

Results

The maximum decrease in the Indian Courser encounter rate was observed in the saline grassland of Jakhau village. The maximum encounter rate of the species was recorded in November 2007 and the minimum in June 2007 in transect no. 1 (Fig. 1). But after March 2008, not a single bird was recorded in the transect and nearby areas. The same situation prevailed in transect no. 2 and 3 (Fig. 1), where the highest encounter rate of the species was recorded in July 2007 and of the lowest in February 2008 respectively.

The encounter rate declined in Naliya grassland too. The affected area was more than 0.1 sq. km; the actual area could not be measured because only one transect passed through this area (Fig. 1). From March 2008 onwards, plantation of trees was carried out in some fine grasslands in Naliya (Vinghaber). Due to this plantation activity, sighting of the Indian Courser became uncommon in this area (Fig. 2).

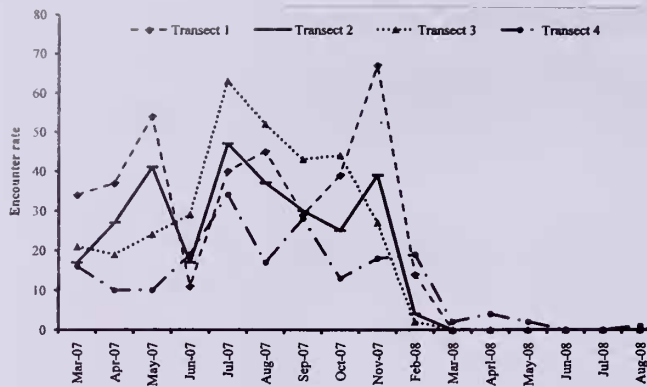


Fig. 1: Month-wise decrease in Indian Courser encounter rate in transects

Discussion

The Indian Courser density seems to fluctuate in some areas of the taluka as the species is nomadic and locally migratory. But in the grasslands of Abdasa taluka, the species gives the impression of having disappeared. The most affected foraging habitat was in transect nos 1, 2 and 3 (Fig. 1). These transects cover the saline grassland of Jakhau village. The study area is in close proximity to the Gulf of Kachchh, and thus the area is also interspersed with saline grassland habitat. Sudden changes in the encounter rate were observed due to the construction of windmills and the movement of vehicles in the area. The construction of windmills has totally destroyed the natural saline grassland. Earlier the species were recorded in good numbers, but due to haphazard construction of windmills, the habitat of the Indian Courser has been destroyed. The area was disturbed to make better roads for heavy vehicles to transport the windmill parts. The total area covered by transects during the present study was 0.3 sq. km in the saline grassland habitat of Abdasa taluka. However, the total extent of the affected area is more than 2 sq. km. The Indian Courser was also recorded outside the fixed width transect but were not considered for the data analysis. It is now an uncommon species in the entire study area.

The Indian Courser mainly utilizes the uncultivated fallow land, but at the time of cultivation, the fallow land

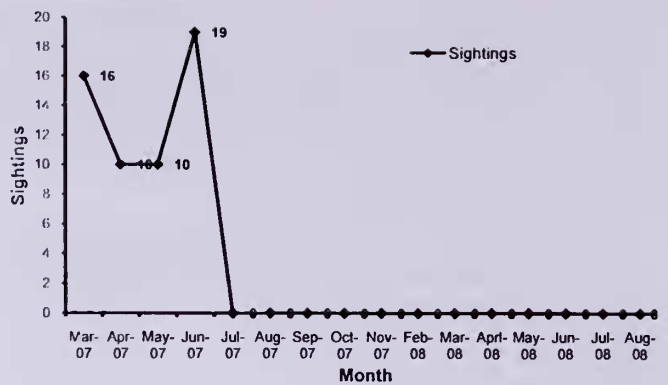


Fig. 2: Month-wise sighting of Indian Courser in area under plantation

becomes futile for the species (Indian Courser). The intense agricultural activity carried on in Kachchh is due to a good monsoon for the last 3 years. Due to this agriculture activity, the natural grasslands of the study area are being encroached upon. With encroachment for growing crops, utilisation of these habitats by the Indian Courser decreased. This is clearly seen in transect no. 4 (Fig. 1). Earlier, this area was covered with short grasses, providing a very good habitat for the Indian Courser. This kind of situation can also be seen in some parts of Abdasa taluka. One more threat to the habitat of the Indian Courser is plantation activities in the natural grasslands of the taluka. The Indian Courser does not prefer habitats with big trees. Plantation activities of the Forest Department in the natural grassland have destroyed the natural habitat of the Indian Courser. It has totally disappeared from this area (Fig. 2).

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